

REMARKS

Claims 1-5, 7-12, and 19-21 are pending in the present Application. Claim 21 has been canceled, claims 1 and 20 have been amended, and no claims have been added, leaving Claims 1-5, 7-12, and 19-20 for consideration upon entry of the present Amendment.

A telephone interview was held on June 9, 2006 with Examiner James Mackey regarding the rejections in the present Office Action. Applicants first wish to thank the Examiner for his time in discussing the invention. In summary of the discussion, features of the invention were described to the Examiner, including that the claimed apparatus comprises upper and lower hot plates separated by a gap, and upper and lower carrier films which are used to transport the raw material (curable precursor to artificial marble) through the gap. The carrier films are connected to a drive system that pulls the carrier films through the hot plates. The heating plates heat the raw material composition directly by conduction, by direct contact of the heating plates to the carrier films and the carrier films to the raw material, without intervening steel belts. The carrier films thus transport the raw material through the hot plate gap, and are not a part of the artificial marble but are released from the artificial marble and collected on spools prior to cutting the artificial marble. No steel belts are used in the invention for transport, and the carrier is not incorporated into the artificial marble. The Examiner suggested that amendments to claim 1 reciting the foregoing limitations not present in Claim 1, support for which is provided in the Specification as described below, are appropriate and would be considered in overcoming the rejections.

The Examiner suggested that the use of functional limitation in claim 1, relating to the operating temperature of the heating plates, is not a distinguishing element of the apparatus and cannot be used to limit the apparatus. Case law was cited by the Examiner in support. See *In re Finsterwalder*, 168 USPQ 530. It was recommended that the functional language should be deleted from claim 1. The Examiner also cautioned several times on the use of "comprising" language (as in claim 1).

Claim 1 has therefore been amended to remove limitations for the operating temperature of the heating plates, and to include limitations describing: raw material composition in contact with upper and lower carrier films; upper and lower heating plates on a

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support frame; upper heating plate in contact with the upper carrier film, and lower heating plate in contact with lower carrier film; the lower and upper carrier films being attached to the carrier film fixture as the means of moving the curable compound through the gap between the heating plates; and the carrier film being releasable from the artificial marble produced. Support for these amendments can be found respectively in the Specification at least on: p. 8, lines 1-5; p. 20, lines 20-21; p. 17, lines 6-9 and p. 16, lines 21-22; p. 13, lines 22-24 and p. 14, line 10; and p. 4, lines 23-25.

Claim 3 has been amended for proper grammar, in light of the foregoing amendments to claim 1. Claim 20 has been amended to correct an inadvertent typographical error. Claim 21 has been canceled.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Objected-to Claims

Claim 21 is objected to under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Specifically, Claim 21 allegedly does not recite a structural limitation of the apparatus of Claim 1. Accordingly, Claim 21 is canceled herewith. No new matter is introduced by this amendment.

Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1-5, 7-12, and 19-21 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in relevant art that the inventors, at the time the Application was filed, had possession of the claimed invention. Applicants respectfully traverse this rejection, based on the foregoing amendments to claim 1 and the following reasons.

The Examiner has rejected claim 1, stating that the Specification does not adequately describe the temperature of the upper and lower heating plates being the same "at their entire section". Claim 1 has in part been amended to remove this phrase. Accordingly, claim 1

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should now be allowable. Reconsideration and allowance are therefore respectfully requested.

The Examiner has also rejected claim 19, stating that the original Specification does not adequately describe that "the gap between the upper and lower horizontal heating plates is constant in a horizontal direction." Applicants respectfully traverse this argument. In the Specification, "a pair of gaskets disposed at horizontal edges of the upper and lower carrier films for regulating thickness and width of the artificial marble plate" are disclosed. See e.g., Specification, p. 4, lines 4-7. The thickness regulating gaskets' function is that of regulating the thickness of the artificial marble produced, as discussed in the following passage:

The outer diameter or the height of each of the gaskets may be preferably 6 to 40 mm, and more preferably 6 to 20 mm according to the thickness of the artificial marble plate to be produced. See Specification, p. 5, lines 12-14 (emphasis added).

As described in the foregoing passage, the artificial marble is produced in a single thickness predicated on the diameter of the gaskets, and as defined using the upper carrier film contact roll 7. See Specification, p. 11, lines 1-2. The Specification thus does not teach or disclose other than a product artificial marble having uniform thickness. In addition, the heating plates, both upper and lower, are described in the Specification as being "horizontal". See at least Specification, p. 11, lines 6, 11, and 20. One skilled in the art will appreciate that the descriptor "horizontal", when applied to oriented elements of the same apparatus, implies a fixed orientation parallel to the horizon, and that two such horizontal elements can reasonably be concluded to be parallel to one another, i.e., having a constant gap along the parallel length. Thus, it can therefore reasonably be concluded from the foregoing that the gap provided by the upper and lower heating plates, so oriented and as separated by the diameter of the gaskets with allowance for the passage of the upper and lower carrier films, is constant for the length and width of the heating plates. Reconsideration and allowance are respectfully requested.

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Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-5, 7-12, and 19-21 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner has rejected Claim 1 for inclusion of the term "across their entire section", and the remaining claims as dependent on claim 1. Accordingly, claim 1 has been amended to remove the above term as described hereinabove, and should now be allowable. Reconsideration and allowance are respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 5, and 7-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 3, 422,178 (hereinafter "Junker") in view of either U.S. Pat. No. 4,254,074 (hereinafter "Toyooka") or Japanese Patent Document No. 10-217264 (hereinafter "Japan '264"). Applicants respectfully traverse this rejection.

Junker discloses an apparatus having two endless flexible steel belts forming a mold cavity. Col. 3, lines 41-45. The mold cavity is further bounded by a gasket that can form a leakproof seal when pressed between the belts and running concurrently with them, or can be stationary, and can enclose all or only a portion of the cavity. Col. 7, lines 49-57.

Toyooka discloses an apparatus for providing a synthetic resin sheet and film having two endless steel belts. Abstract. The film can be fed off a feeding spool into an end of the apparatus and pulled through frictionally (gravitationally), in contact with the syrup being cast, with or without adhesive contact to the belts. Col. 2, lines 26-40. The film is incorporated with the syrup being cast to form a cast sheet with film disposed on at least one side, becoming an integral part of the same and not laminated thereto. Col. 2, line 55 to Col. 3, line 31. The film is fed to one or both of the traveling steel belts, and is pulled through the apparatus by the steel belts. Col 3, lines 15-41.

Japan '264 discloses an apparatus having a pair of endless steel belts and films provided by film feed units, forming a cure space for forming plates of synthetic stone. Abstract. The movement of the steel rollers provides the plate-shaped product. Abstract. The

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product is cured by circulation of hot air (convection). Abstract.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

Junker, Tooyoka, and Japan '264 each disclose the use of endless steel rollers to provide the mechanical means to pull the curable composition through their respective apparatuses. Junker fails to disclose use of a carrier film. Tooyoka discloses the use of a film as a component of a product, wherein the film is drawn through the apparatus by the action of the steel belt, and which is subsequently integrated into the resulting product. One skilled in the art will readily appreciate that the film so incorporated into a product is not separable from the product, and thus is not equivalent to the windable and unwindable carrier film that is releasable from the artificial marble as claimed in amended Claim 1. Further, neither Junker, Tooyoka, nor Japan '264 discloses or teaches the carrier film fixture for drawing the carrier films through the apparatus, as disclosed in amended Claim 1. Thus, the references fail to teach all elements of instant Claim 1, from which the remaining claims depend. Therefore, Junker in view of either Tooyoka or Japan '264 does not make the invention of the instant claims unpatentable.

In addition, Claims 2-4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Junker in view of either Toyooka or Japan '264, in further view of U. S. Patent No. 5,658,508 ("Yukawa"). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Yukawa discloses belt-like upper and lower carrier films for transporting a resin

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compound between thickness regulating plates. Abstract. The resin compound is cured by convection by passing the resin composition through a curing oven after the thickness adjustment. Col. 8, lines 48-53. Yukawa fails to disclose or teach the use of a heating plate for curing the resin compound. Further, Yukawa fails to disclose contacting a heating plate with the resin compound, via contact to the carrier film, as claimed in amended claim 1. Further, as discussed hereinabove, each of Junker, Toyooka, and Japan '264 provides an apparatus which uses steel belts on rollers for moving a curable composition through an apparatus. Yukawa teaches that the use of complicated apparatus having steel belts does not provide uniformity in the materials produced by the apparatus, and that a uniformly flat sheet cannot be obtained. Col. 1, lines 41-64 and col. 2, lines 14-15. Thus, Yukawa clearly teaches away from combining with an apparatus that includes steel belts, and therefore does not provide a suggestion or incentive to combine with either Junker, Toyooka, or Japan '264. In addition, in view of the direct teaching that the uniformly flat sheet cannot be obtained, Yukawa provides no reasonable expectation that a combination with Junker, Toyooka, or Japan '264 would be successful. Thus, a combination of Junker, and Toyooka or Japan '264 with Yukawa fails to teach the invention of the instant claims, and does not render the claims unpatentable. Reconsideration and allowance are therefore respectfully requested.

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It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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